

1
2
3
4
5

PART III, OPERATING UNIT GROUP
OPERATING UNIT GROUP 9 CONDITIONS
T-PLANT COMPLEX

DRAFT

1
2
3
4

The page intentionally left blank.

DRAFT

PART III, OPERATING UNIT GROUP
OPERATING UNIT GROUP 9 CONDITIONS
T-PLANT COMPLEX

UNIT DESCRIPTION

T-Plant Complex Operating Unit Group (T-Plant) is located within the 200 West Area of the Hanford Facility. T-Plant was constructed in 1943 and began decontamination operations in 1957. T-Plant provides storage and treatment for dangerous and/or mixed waste (MW) generated both on and off the Hanford Facility. The following wastes may be managed at the T-Plant Operating Unit Group: dangerous or mixed waste that is generated from processes at the Hanford site, or waste that is specifically identified in Section II, paragraph 8 of the Settlement Agreement re: Washington v. Bodman, Civil No. 2:30-cv-05018-AAM, January 6, 2006. No other wastes may be managed at T-Plant unless authorized via a permit modification decision pursuant to Permit Condition I.C.3. Requests for Permit modifications must be accompanied by an evaluation adequate for Ecology to comply with SEPA

T-Plant consists of the following dangerous waste management units (DWMU's) where dangerous and mixed waste is treated or stored

- 221-T Canyon Building
 - 221-T Canyon Deck
 - 221-T Cells
 - 221-T Tank System
 - 221-T Railroad Tunnel
 - 221-T Head End
- 2706-T Buildings
 - 2706-T Building
 - 2706-TA Building
 - 2706-TB Building
- 214-T Building

The T-Plant consists of the following outdoor dangerous waste management units:

- 2706-T Storage Yard
- Dangerous and Mixed Waste Storage Modules (for storage only)
 - HS-030 Storage Module
 - HS-031 Storage Module
 - HS-032 Storage Module
- 2706-T Asphalt Pad
- 211-T Cage
- 221-T R-5 Waste Storage Area
- 221-TA Storage Area
- 243-T Covered Storage Pad
- 221-T Sand Filter Storage Area
- 211-T Pad

- 221-T BY Storage Area

LIST OF ADDENDA

Addendum A	Part A Form
Addendum B	Waste Analysis Plan
Addendum C	Process Information
Addendum D	Groundwater - (RESERVED)
Addendum E	Security
Addendum F	Preparedness and Prevention
Addendum G	Personnel Training,
Addendum H	Closure Plan,
Addendum I	Inspection Requirements
Addendum J	Contingency Plan

DEFINITIONS

There are no terms unique to T-Plant not already identified in the overall Permit.

ACRONYMS

2706-T, TA, TB Buildings with independent decontamination capabilities.

III.9.A COMPLIANCE WITH PERMIT CONDITIONS

III.9.A.1 The Permittees will comply with all conditions in this Chapter and its addendums for T-Plant Operating Unit Group with respect to dangerous waste treatment and storage and the DWMUs within T-Plant Operating Unit Group 9 (T-Plant), in addition to requirements in Part I and II.

III.9.B GENERAL WASTE MANAGEMENT STANDARDS

III.9.B.1 The Permittees are authorized to accept dangerous and/or mixed waste that satisfies the waste acceptance criteria in Addendum B, according to the waste acceptance requirements, in Addendum B for treatment and/or storage within the T-Plant DWMUs identified in Addendum C. [[WAC 173-303-300](#)]

III.9.B.2 The Permittees will maintain the physical structure of T-Plant dangerous waste management units as documented in Addendum C.[Permit Condition I.E.4]

III.9.B.3 The Permittees will develop, maintain, and conduct waste management operations authorized by this chapter, according to written procedures. [[WAC 173-303-300](#)(5)] The Permittees will place a copy of such procedures and any revisions in the T-Plant section of the operating facility record. [[WAC 173-303-380 \(1\)\(c\)](#)]

III.9.C WASTE ANALYSIS

III.9.C.1 The Permittees will comply with all requirements in Addendum B of this Chapter for sampling and analysis of all dangerous and/or mixed waste managed within the T-Plant DWMUs. [[WAC 173-303-300](#)(5)].

III.9.C.2 To confirm the knowledge of waste to be managed in the T-Plant Operating Unit Group and its authorized DWMUs, the Permittees will provide within 14 days of the effective date of this permit, a modification request that identifies and defines the waste acceptance criteria for each of the authorized DWMUs identified in Addendum C [[WAC 173-303-300](#)(1)] to include:

III.9.C.2.a The Permittees will provide within 14 days of the effective date of this permit, test procedures and an evaluation process to demonstrate that wastes received at the authorized DWMUs do not contain free liquids for individual containers prior to acceptance to any of the T-Plant dangerous waste management units. [[WAC 173-303-806](#)(4)9(b)(ii)(A)]

III.9.C.2.b Within 14 days of the effective date of this permit, the Permittees will develop a schedule to work with Ecology staff to develop a performance criterion for determining the testing frequency of the presence or absence of free liquids. [[WAC 173-303-806](#)(4)(b)(ii)(A)]

III.9.C.2.c Within 14 days of the effective date of this permit, the Permittees will revise Addendum B to identify the procedures for confirmation of LDR compliance for dangerous wastes and debris for all waste streams [[WAC 173-303-140](#), incorporated by reference 40 CFR 268].

III.9.C.2.d Within 14 days of the effective date of this permit, the Permittees will revise Addendum B to describe the processes for verification and management of the MLLW portion of Retrievably Stored Waste (RSW) to be stored in the T Plant Operable Unit.

III.9.D RECORDKEEPING AND REPORTING

III.9.D.1 The Permittees will keep records required by [WAC 173-303-380](#).

III.9.D.1.a Records and results of waste analysis, waste determinations as required by Subpart CC by 40 CFR §264.1034, §264.1063, §264.1083, §268.4(a), and §268.7; [[WAC 173-303-380\(1\)\(c\)](#)]

III.9.E SECURITY

III.9.E.1 The Permittees will implement and maintain the practices described in Addendum E, Security, and required by Permit Condition II.L at T-Plant. [[WAC 173-303-310\(2\)\(B\)](#)]

III.9.F PREPAREDNESS AND PREVENTION

III.9.F.1 The Permittees will implement the practices specific to T-Plant as described in Addendum F, Preparedness and Prevention. [[WAC 173-303-340](#)]

III.9.G CONTINGENCY PLAN AND EMERGENCY RESPONSE

III.9.G.1 The Permittees will comply with the contingency plan requirements in Addendum J specific to DWMUs and waste management activities in Operating Unit Group 09. [[WAC 173-303-340](#)]

III.9.H INSPECTIONS

III.9.H.1 The Permittees will implement the practices described in Addendum I, Inspection Plan, and include the inspection requirements of Addendum I in the inspection schedule of Permit Condition II.X.1 [[WAC 173-303-320\(2\)](#)]

III.9.I TRAINING PLAN

III.9.I.1 The Permittees will, in a written training plan, include training requirements as specified in Addendum G, Personnel Training, and in accordance with requirements of WAC 173-303-330(2), incorporated by reference, and Permit Condition II.C. [[WAC 173-303-330](#)]

III.9.J OTHER GENERAL REQUIREMENTS

III.9.J.1 Land Disposal Restriction Requirements

The Permittees will ensure a schedule of compliance and any applicable associated work requirements are included in the land disposal restrictions report required by the HFFACO Milestone M-26, incorporated by reference by permit condition II.S for treatment and/or acquisition of treatment capacity for wastes which are or are expected to be stored in the T-Plant container storage units.

III.9.K CLOSURE

III.9.K.1 The Permittees will implement the practices as described in Addendum H, Closure Plan, and Permit Condition II.J when closing the T-Plant dangerous waste management units. [[WAC 173-303-610\(4\)](#)]

III.9.L POST-CLOSURE – RESERVED

III.9.M CRITICAL SYSTEMS - RESERVED

III.9.N RESERVED

III.9.O CONTAINERS

III.9.O.1 Condition of Containers

III.9.O.1.a The Permittees will ensure that all containers remain in good condition. If a container holding dangerous or mixed waste is not in good condition (e.g., severe rusting or corrosion, or apparent structural defects), or if it begins to leak, the Permittees must transfer the waste from the container to a container that is in good condition or place the leaking container in an appropriate overpack container or manage the waste in some other way that complies with the requirements of chapter 173-303 WAC. [[WAC 173-303-630\(2\)](#)]

III.9.O.1.b The Permittees will label containers in accordance with requirements of [WAC 173-303-630\(3\)](#) and [WAC 173-303-395\(6\)](#), incorporated by reference.

III.9.O.2 Management of Containers

III.9.O.2.a III.09.O.2.a The Permittees shall manage dangerous and/or mixed waste containers in accordance with [WAC 173-303-630\(5\)](#).

III.9.O.2.b III.09.O.2.b In accordance with [WAC 173-303-630\(5\)\(a\)](#), the Permittees will keep all containers closed during storage, except when necessary to add or remove waste.

III.9.O.3 Secondary Containment Systems

III.9.O.3.a The Permittees will maintain the secondary containment systems in accordance with [WAC 173-303-630\(7\)\(a\)](#), and Addendum C, of this permit.

III.9.O.3.b The Permittees will ensure that the secondary containment systems (where required) for dangerous waste management units within the T-Plant Operating Unit Group, are free of cracks and gaps to prevent any migration of waste or accumulated liquid out of the system or to the soil, groundwater, or surface water when dangerous and/or mixed waste is stored, in accordance with [WAC 173-303-630\(7\)\(a\)\(i\)](#).

III.9.O.3.c The Permittees will not exceed the allowable volume of dangerous and/or mixed as indicated in Table C.2 in Addendum C.

III.9.O.3.d Secondary containment systems for dangerous waste management units will be constructed and maintained to contain 10% of the total volume of waste containers or 100% of the volume of the largest container, whichever is greater.

III.9.P TANK SYSTEMS

III.9.P.1 The Permittees will develop a schedule for conducting integrity assessments (IA). The schedule will meet the requirements of Addendum C, Section C.2.4.3 and consideration of the factors in [WAC 173-303-640\(2\)\(e\)](#) or [WAC 173-303-640\(3\)\(b\)](#).

III.9.P.2 The Permittees will maintain a copy of the schedule required by Permit Condition III.09.P.1 in the Hanford Operating Record, T-Plant file, and conduct periodic integrity assessments according to the schedule. The Permittees will document results of integrity assessments conducted according to the IA in the Hanford Facility Operating Record, T-Plant file.

III.9.P.3 For existing tank systems, if a tank is found to be leaking, or is unfit for use, the Permittees must follow the requirements of [WAC 173-303-640\(7\)](#), incorporated by reference. [[WAC 173-303-640\(3\)\(b\)](#)]

III.9.P.4 Tank System Operating Requirements

III.9.P.4.a The Permittees will comply with the requirements of [WAC 173-303-640\(5\)\(a\)](#), incorporated by reference regarding treatment reagents.

III.9.P.4.b The Permittees will comply with the requirements of [WAC 173-303-640\(5\)\(b\)](#) for appropriate tank system controls and practices.

III.9.P.4.c The Permittees will comply with the requirements of [WAC 173-303-640\(5\)\(d\)](#) regarding marking with labels or signs.

III.9.P.4.d The Permittees will comply with the requirements of [WAC 173-303-640\(10\)](#), incorporated by reference regarding incompatible waste.

III.9.P.5 Tank Management Requirements

III.9.P.5.a The Permittees will comply with Addendum C, Section C.2.4 for management of the 2706-T Tank System.

III.9.P.5.b For the 221-T Tank System and the 2706-T Tank System have tanks that routinely are non-accessible. The Permittees will mark all access points to the tank when dangerous and/or

1 mixed waste is being managed in the tanks. For the purposes of this Permit condition,
2 “routinely non-accessible” means personnel are unable to enter these areas while waste is
3 being managed in them [[WAC 173-303-640](#)(5)(d)].

4 **III.9.P.5.c** An impermeable coating will be maintained for all concrete containment systems and
5 concrete portions of containment systems for each T-Plant Tank System when dangerous
6 and/or mixed waste is being managed in the tank. Concrete containment systems that do not
7 have a liner and have construction joints, must meet the requirements of [WAC 173-303-](#)
8 [640](#)(4)(e)(ii)(C) and [-806](#)(4)(c)(vii). The coating will prevent migration of any dangerous
9 and/or mixed waste into the concrete. All coatings will meet the following performance
10 standards:

- 11 i. The coating must seal the containment surface such that no cracks, seams, or
12 other avenues through which liquid could migrate are present;
- 13 ii. The coating must be of adequate thickness and strength to withstand the normal
14 operation of equipment and personnel within the given area such that
15 degradation or physical damage to the coating or lining can be identified and
16 remedied before dangerous and/or mixed waste could migrate from the system;
17 and
- 18 iii. The coating must be compatible with the dangerous and/or mixed waste,
19 treatment reagents, or other materials managed in the containment system [[WAC](#)
20 [173-303-640](#)(4)(e)(ii)(D)].

21 **III.9.P.5.d** If liquids (e.g., dangerous and/or mixed waste leaks and spills, precipitation, fire water,
22 liquids from damaged or broken pipes) cannot be removed from the secondary containment
23 system within twenty-four (24) hours, Ecology will be verbally notified within twenty-four
24 (24) hours of discovery. The notification will provide the information in A, B, and C listed
25 below. The Permittees will provide Ecology with a written demonstration within seven (7)
26 business days, identifying at a minimum [[WAC 173-303-640](#)(4)(c)(iv), [WAC 173-303-](#)
27 [640](#)(7)(b)(ii), [WAC 173-303-806](#)(4)(c)(vii)]:

- 28 A. Reasons for delayed removal;
- 29 B. Measures implemented to ensure continued protection of human health and the
30 environment;
- 31 C. Current actions being taken to remove liquids from secondary containment.

32 **III.9.Q CONTAINMENT BUILDING**

33 **III.9.Q.1** The Permittees will comply with the containment building requirements in Addendum C,
34 Section C.2.6 [[WAC 173-303-695](#)]

35 **III.9.R MISCELLANEOUS UNITS**

36 The Permittees will comply with the miscellaneous unit requirements in Addendum C,
37 Section C.2.7. [[WAC 173-303-680](#)]
38

1
2
3

This page intentionally left blank.

DRAFT